

#AOP-12-005
DEC#EJ95-0448

Operating Permit Expiration Date: June 14, 2023

State of Vermont
Agency of Natural Resources
Department of Environmental Conservation



Air Quality & Climate Division
Montpelier, Vermont

TITLE V
AIR POLLUTION CONTROL PERMIT
TO CONSTRUCT AND OPERATE
AND ACID RAIN PHASE II PERMIT

Date Permit Issued: June 14, 2018

Owner/Operator: Burlington Electric Department
585 Pine Street
Burlington, VT 05401-4891

Source: Electric Generating Facility
Unit ID #1
Joseph C. McNeil Generating Station
ORIS Code: 589
111 Intervale Road
Burlington, VT 05401

FINDINGS OF FACT

(A) FACILITY DESCRIPTION

Burlington Electric Company (also referred to herein as "Permittee") owns and operates a fifty (50) megawatt (net) multi-fuel fired power plant located at 111 Intervale Road in the town of Burlington, Vermont (also referred to herein as "Facility"). Other electrical power companies with an ownership interest in the McNeil Station include Green Mountain Power Corporation and Vermont Public Power Supply Authority. Operations performed at the McNeil Station are classified within the Standard Industrial Classification Code - 4911 (Electrical Services). The McNeil Station is designated as an "intermediate" power generation plant, and is subject to central dispatch by the Independent System Operator New England ("ISO New England"), a regional consortium of electrical utilities.

Permit #AOP-07-020 approved the renewal of the Facility's combined Permit to Construct and Operate. In addition, the Permittee had proposed to install and operate a selective catalytic reduction (SCR) system in order to reduce the facility's emissions of NO_x. The reduced NO_x emissions are required for the Facility to qualify for Class 1 renewable energy credits (RECs) in New England. While the installation of the SCR system is voluntary, once the system is operational, the Permittee must operate the system to meet new NO_x RACT limits.

Permit amendment (#AOP-07-020a) reauthorized the installation and operation of the NO_x SCR system with changes to address the Notice of Appeal for Air Pollution Control Permit #AOP-07-020 filed by the Permittee on May 21, 2008 with the Vermont Environmental Court. As a result of the appeal, additional language was added to Condition (12)(g) of #AOP-07-020 and that Condition is now enforceable only by the state authorities.

Upon issuance of this Permit, the approved regulated operations at the Facility include the following air pollution related operations, equipment and emission control devices:

Equipment Specifications			
Equipment/Make/Model	Rating	Fuel Type	Date of Manufacture (installation)
Main Boiler – Zurn wood-chip fired boiler with capability to fire fuel oil and natural gas	Wood: 750 MMBtu/hr ¹ (85 ton/hr) Oil Burners (3): 27 gal/min Total Capacity <250MMBtu/hr Natural Gas Burners (6): 660 MMBtu/hr total capacity Low NO _x burners: FGR	Wood, distillate fuel oil, natural gas	1981
General Electric Environmental Services Multiclone Model 4X6B56CG37 - treating exhaust from Main Boiler	Pressure Drop: 5" water Inlet Temperature: 315 ^o F Dimensions: 4.6 sq. ft. inlet area per tube, 56" diameter Number of Cyclones: 18	N/A	1981

Equipment Specifications			
Equipment/Make/Model	Rating	Fuel Type	Date of Manufacture (installation)
General Electric Environmental Services Electrostatic Precipitator (9-Field), Model: BA.2X52K4443-6.4 - treating exhaust from Main Boiler	Type of Unit:: Plate and weighted wire Cleaning Method: Rapping Inlet Temperature: 300°F Collecting surface area: 280,800 ft ² Air Flow Rate: 300,000 cfm Corona Power: 3,000 w/Kacfm	N/A	1981
Babcock Power/Pro-Environmental Inc. Regenerative Selective Catalytic Reduction unit – treating exhaust from Main Boiler	Reducing Agent: Aqueous ammonia, 19% Number of Canisters: 6 No. of supplemental burners: 5 Max. burner system Input: 8 MMBtu/hr Catalyst: Cormetech Heat Recovery Media: Ceramic Design Criteria: 236,000 scfm Input Temperature (Max): 315 F Retention Chamber Temperature: 450 F		
Auxiliary Boiler – No. 2 fuel oil or natural gas fired	4 MMBtu/hr	No.2 oil / natural gas	1983
Used Oil Furnace	0.28 MMBtu/hr	Used Oil	2003
Distillate Fuel Storage Tank	300,000 gallons	No.2 Oil	-
Distillate Fuel Storage Tank	6,000 gallons	No.2 Oil	-
Cooling Tower	42,000 gallon/minute recirculation rate 0.001% drift loss-	-	1981

¹ MMBtu/hr - Million British Thermal Units per hour maximum rated heat input.

(B) FACILITY CLASSIFICATION

The Facility is classified as a source of air contaminants pursuant to Title 10 of the *Vermont Statutes Annotated* ("10 VSA") §555 and §5-401(3) [Electrical power generation facilities], (6)(a) [Fossil fuel-burning equipment], and (6)(b) [Wood fuel-burning equipment of greater than 90 H.P. rated output] of the *Vermont Air Pollution Control Regulations* (hereinafter "*Regulations*"). In addition, §5-101 of the *Regulations* defines a *stationary source* as any structure(s), equipment, installation(s), or operation(s), or combination thereof, which emit or may emit any air contaminant, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person or persons under common control. Based on this definition, all of the equipment, operations, and structures at the Facility are grouped together by the Agency of Natural Resources, Department of Environmental Conservation, Air Quality & Climate Division (hereinafter "*Agency*") as one stationary air contaminant source for purposes of review under the *Regulations*.

(C) PRIOR AGENCY ACTIONS/APPROVALS

The Facility has been issued the following "Permit to Construct" approvals pursuant to 10 VSA §556 and §§5-501 and 5-502 of the *Regulations* and the following "Permit to Operate" approvals pursuant to 10 VSA §556a and Subchapter X of the *Regulations*.

Prior Agency/Court Approvals and Actions	
Date of Action	Description of Agency Approval/Action
May 2, 1980	Original Agency Permit to Construct: approved construction and operation of wood fired electric power plant. (Major New Source Review)
July 13, 1982	Court Order imposed NOx emission limits (short term and annual) and required continuous emission monitoring.
September 15, 1989	#AP-89-010 - Agency approval for installation and operation of natural gas burners. (Major Modification)
January 22, 1992	Assurance of Discontinuance: Required Flue Gas Recirculation installation and operation in order to bring NOx emissions from Main Boiler into compliance with Permit limits. Also required ESP maintenance and reporting actions.
June 9, 1995	#AP-89-010a - Agency approval for combustion of gasifier gas and installation of new burner (FERCO). (Administrative Amendment)
April 1, 1996	#AP-89-010 b - Administrative amendment updating boiler specifications and lb/hr emission limits for NOx.
March 11, 1998	#AOP-95-047 – Initial Title V Operating Permit issued.
November 28, 2001	Settlement Agreement eliminated annual cap on NOx emissions attributable to wood combustion imposed by July 13, 1982 Court Order.
October 28, 2003	#AOP-01-057 – Renewal of Title V Operating Permit that included a fuel neutral SO ₂ limit for the Main Boiler as well as lower NOx emission rates for the main boiler.
April 21, 2008	#AOP-07-020 – Renewal of Title V Operating Permit and a Construction Permit for the installation of a regenerative selective catalytic reduction NOx control device.
February 02, 2009	#AOP-07-020A—Prior permit (#AOP-07-020) was appealed; this permit modifies the NOx quarterly limit. OP expiration was not extended.

(D) FACILITY PERMIT APPLICABILITY

As noted above, the Facility is classified as a source of air contaminants under §5-401 of the *Regulations*. Pursuant to 10 VSA §556a and Subchapter X of the *Regulations* a Permit to Operate is required for any air contaminant source with allowable emissions of all air contaminants combined of ten (10) tons per year ("tpy") or more or that is otherwise subject to Title 40 *Code of Federal Regulations* ("40 CFR") Part 70.

The Facility currently operates under a Permit to Operate issued on February 2, 2009. The allowable emissions from the Facility are estimated to be greater than ten (10) tpy)

and emissions of nitrogen oxides (NO_x), and carbon monoxide (CO) are estimated to be in excess of the one-hundred (100) tpy threshold for applicability to Title V of the federal Clean Air Act. Therefore, pursuant to §§5-1002, 5-1003, and 5-1005 of the *Regulations* the Facility is classified as a Title V Subject Source. In accordance with §5-1009 of the *Regulations*, the Agency is issuing the Permit to Operate herein as a renewal of the previous Permit to Operate for the Facility and the Permit herein supersedes all prior Permits for the Facility.

In accordance with 10 VSA §556(e) the Agency has combined the previous Permit to Construct modification and the Permit to Operate renewal for this Facility into one combined Permit to Construct and Operate. The allowable emissions for the Facility are summarized below:

Future Allowable Air Contaminant Emissions (tons/year)¹						
PM/PM₁₀/PM_{2.5}	SO₂²	NO_x	CO	VOCs	Total Criteria	HAPs³
46.6	44.6	496	1,469	<50	>10	<10/25

¹ PM/PM₁₀/PM_{2.5} – total particulate matter, total particulate matter of 10 micrometers in size or smaller and total particulate matter of 2.5 micrometers in size or smaller, respectively. Unless otherwise specified, all PM is assumed to be PM_{2.5}; SO₂ - sulfur dioxide; NO_x - oxides of nitrogen measured as NO₂ equivalent; CO - carbon monoxide; VOCs - volatile organic compounds; HAPs - hazardous air pollutants as defined in §112 of the federal Clean Air Act

² The Main Boiler continues to have an SO₂ limit of 39 tons. The potential SO₂ emissions from other equipment at the site have been included in this table.

³ Emissions of individual HAPs each < 10 tpy and emissions of total HAPs combined <25 tpy.

(E) REVIEW FOR THE PERMIT TO CONSTRUCT

(a) New Source Review Designation

The Permittee has not proposed any modifications to the Facility in conjunction with the review for this Permit to Operate and therefore is not subject to review under the New Source Review requirements in §5-501 or §5-502 of the *Regulations* at this time.

(b) Most Stringent Emission Rate

Pursuant to §5-502 of the *Regulations*, the owner/operator of each new major stationary source or major modification must apply control technology adequate to achieve the Most Stringent Emission Rate ("MSER") with respect to those air contaminants for which there would be a major or significant actual emissions increase, respectively, but only for those currently proposed physical or operational changes which would contribute to the increased emissions.

The Permittee has not proposed any modifications to the Facility in conjunction with the review for this Permit to Operate and therefore is not subject to review under the MSER requirements in §5-502 of the *Regulations* at this time.

Prior MSER Evaluations:

Most Stringent Emission Rate Determinations		
Date of Determination/ Permit #	Pollutant	Description/Emission limit
May 2, 1980 Original Permit to Construct Wood Fired Power Plant (Major New Source Review)	SO ₂	Wood as primary fuel and low sulfur fuel oil (0.39% S)
	NO _x	Modern combustion design of boiler and low flame temperature due to wood combustion.
	CO	Modern combustion design of boiler.
September 15, 1989 #AP-89-010 Approval for Natural Gas Combustion (Major Modification)	PM ₁₀	Existing controls: cyclones with ESP. Emission limit of 0.007 gr/dscf corrected to 12% CO ₂ . (Emission rate from May 2, 1980 permit)
	NO _x	Low NO _x burners for natural gas combustion. Emission rate: 0.16 lb/MMBtu until 10/31/92. After 10/31/92, emission rate of 0.13 lb/MMBtu (8-hour rolling average).
	CO	Modern design and monitoring (CEM). 1,500 ppmv (one hour rolling average) emission limit.

(c) Ambient Air Quality Impact Evaluation

An ambient air quality impact evaluation is performed to demonstrate whether or not a proposed project will cause or contribute to violations of the ambient air quality standards and/or significantly deteriorate existing air quality. The Agency's implementation procedures concerning the need for an ambient air quality impact evaluation under §5-406(1) of the *Regulations*, specifies that such analyses may be required when a project results in an allowable emissions increase of ten (10) tons per year or more of any air contaminant, excluding VOCs. Additionally, the Agency may require an air quality impact evaluation where the short-term allowable emission rates will significantly increase as a result of a project.

Based on the level of emissions from this Facility, it is not expected to cause or contribute to a violation of any ambient air quality standard or significantly deteriorate air quality. Therefore, an air quality impact evaluation was not required by the Agency for the proposed project.

Ambient air quality impact analyses were performed in 1980 and 1989. An ambient impact analysis was performed in 1980 as part of the original review for the Facility. The pollutants CO, SO₂ and NO_x were modeled and it was determined that the proposed impacts would not cause a violation of any National Ambient Air Quality Standard (NAAQS), exceed any PSD Increment or significantly contribute to an existing violation of a NAAQS.

An ambient air quality analysis was performed again in 1989 for permit #AP-89-010. The pollutants PM, NO_x, SO₂ and CO were modeled and it was again

determined that the proposed impacts would not cause a violation of any NAAQS, exceed any PSD Increment or significantly contribute to an existing violation of an NAAQS.

(F) REVIEW FOR THE PERMIT TO OPERATE

(a) Applicable Requirements

The operations at the Facility are subject to the following state and federal laws and regulations, the requirements of which are embodied in the conditions of this Permit.

(i) *Vermont Air Pollution Control Regulations:*

Applicable Requirements from the Vermont Air Pollution Control Regulations
Section 5-201 – Prohibition of Open Burning
Section 5-211(2) and (3) - Prohibition of Visible Air Contaminants, Installations Constructed Subsequent to April 30, 1970. Exceptions – Wood Fuel Burning Equipment.
Section 5-221(1) - Prohibition of Potentially Polluting Materials in Fuel, Sulfur Limitation in Fuel.
Section 5-221(2) - Prohibition of Potentially Polluting Materials in Fuel, Used Oil.
Section 5-231(1) - Prohibition of Particulate Matter; Industrial Process Emissions.
Section 5-231(3) - Prohibition of Particulate Matter; Combustion Contaminants.
Section 5-231(4) - Prohibition of Particulate Matter; Fugitive Particulate Matter.
Section 5-241 – Prohibition of Nuisance and Odor.
Section 5-251 – Control of Nitrogen Oxide Emissions
Section 5-252 – Control of Sulfur Dioxide Emissions
Section 5-261(3) – Control of Hazardous Air Contaminants - Hazardous Most Stringent Emission Rate.
Section 5-402 – Written Reports When Requested.
Section 5-403 – Circumvention.
Section 5-404 – Methods for Sampling and Testing of Sources.
Section 5-405 – Required Air Monitoring.
Subchapter VIII – Registration of Air Contaminant Sources.
Subchapter X – Operating Permits.

(ii) Reasonably Available Control Technology - §5-1010 of the *Regulations*

Pursuant to 10 VSA §556a(d) and §5-1010 of the *Regulations* the Agency may establish and include within any Permit to Operate emission control requirements based on Reasonably Available Control Technology ("RACT"). At the request of the Agency and as part of the 2003 Title V renewal application, the Permittee performed a RACT analysis for the pollutants NOx and CO emitted from the Main Boiler. The RACT analysis was subsequently submitted to the Agency on September 6, 2002 for review.

For permit #AOP-01-057, the Agency determined that RACT for NOx was a short term (8 hour rolling average) NOx emission rate for oil and wood combustion of 0.23 lbs/MMBtu. The limit was based on optimized operation of the boiler in its current configuration. The Agency also established a NOx emission limit of 493 tons per rolling 12 months for the Main Boiler. RACT for CO was reviewed and continued to be good combustion practices and a CO limit of 1,500 ppmv (1 hour average).

With the NOx SCR system, the RACT for the Main Boiler at the Facility, in addition to the above short term limit, will be the operation of the NOx SCR system in such a manner to achieve a NOx emission limit of 0.075 lb/MMBtu based on a calendar quarterly average. Condition (12)(g) discusses what operating periods may be excluded from the calendar quarterly average.

CO RACT with or without a NOx SCR system will continue to be good combustion control with the same emission limits originally imposed under #AOP-01-057.

(iii) Existing Air Pollution Control Permit to Construct and/or Operate

The Facility currently operates under the confines of a Permit to Construct & Operate issued on February 02, 2009 (#AOP-07-020a). The conditions within that existing permit are considered applicable requirements pursuant to §5-1002 of the *Regulations*. The requirements of that permit which are not being modified herein are incorporated into this new combined Permit to Construct and Operate (#AOP-12-005).

(iv) Federal Requirements:

**Applicable Requirements from
Federal Regulations and the Clean Air Act**

40 CFR Part 60, New Source Performance Standards, Subpart A - General Provisions.

40 CFR Part 60, Subpart Da - Standards of Performance for Electric Utility Steam Generating Units: §60.42a Standards for particulate matter; §60.43a Standards for sulfur dioxide; §60.44a Standards for nitrogen oxides; §60.47a Emission Monitoring; §60.49a Reporting requirements. Applicable to all units of 250 MMBtu per hour or greater for which construction is commenced after September 18, 1978.

The Facility is subject to this regulation. The Facility has a rated heat input of greater than 250 MMBtu/hour, and was constructed after September 18, 1978.

40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. Applies to each storage vessel with a capacity greater than or equal to 75 m³ (19,804 gal) that is used to store volatile organic liquids (including petroleum). This subpart does not apply to the following:

1. Any storage vessel with a capacity less than 75 m³
2. Any storage vessel storing a liquid with a vapor pressure less than 3.5 kPa
3. Any storage vessel with a capacity > 75 m³ and <151 m³ with a v.p. <15.0 kPa
4. Pressure vessels >29.7 psi and without emissions to the atmosphere.
5. Vessels permanently attached to mobile vehicles.
6. Vessels located at bulk gasoline plants.
7. Vessels located at gasoline service stations.

For affected facilities, there are recordkeeping requirements and depending upon the material stored there may be standards for the tank's vent system.

The Facility has no storage tanks subject to this regulation. Any storage tanks at the Facility would be used to store No. 2 fuel oil or used oil, which have a vapor pressure of less than 3.5 kPa.

40 CFR Part 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE). Applies to CI RICE model year 2007 and later as well as those ordered after July 11, 2005 and with an engine manufacture date after April 1, 2006. This standard also applies to stationary CI RICE that are modified or reconstructed after July 11, 2005. This regulation established emission rates for affected engines, requires routine engine maintenance and sets maximum sulfur content for the diesel fuel. Beginning October 1, 2010 applicable engines shall only use diesel fuel with a maximum sulfur content of 15 ppm (ULSD).

The Permittee does not have any stationary reciprocating internal combustion engines such as a diesel generator at this facility. Subpart IIII is not anticipated to apply the Facility.

**Applicable Requirements from
Federal Regulations and the Clean Air Act**

40 CFR Part 63, Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers. Applies to new and existing fuel oil and solid fuel fired boilers located at area sources (major sources are subject to Subpart DDDDD). Natural gas or LPG fired boilers are not subject. This gas exemption allows use of backup fuel during gas curtailments and up to 48 hours of elective use. Oil fired hot water boilers less than 1.6 MMBTU/hr are not subject. The rule requires a tune-up for each boiler once every two years except boilers with oxygen trim and oil boilers less than 5 MMBtu/hr must conduct tune-ups every five years. New boilers greater than 10 MMBtu/hr are subject to PM emission limits. Boilers that commenced construction on or before June 4, 2010 are considered an existing source.

Subpart JJJJJ is applicable to the Main Boiler at the Facility. Since the Main Boiler is considered an existing boiler under this regulation, it is subject to the work practice standards as well as notification, reporting and recordkeeping requirements established in this rule. The work practice standards include biennial tune-ups and a one-time energy assessment. If the boiler has oxygen trim control, then the tune-up is only required every 5 years.

Table 1 of Subpart JJJJJ indicates that the Main Boiler is not considered a new boiler under this subpart, nor is it an existing coal-fired boiler, and as such is not subject to any emission standards under Subpart JJJJJ.

The Auxiliary Boiler is subject to Subpart JJJJJ, as it is permitted for unrestricted use of distillate fuel oil. It is subject to the work practice standards as well as notification, reporting and recordkeeping requirements established in this rule. The work practice standards include biennial tune-ups.

Since the Facility is not a major source of HAPs, the Facility is not subject to 40 CFR Part 63 Subpart DDDDD.

Clean Air Act §§114(a)(3) Inspections, Monitoring and Entry; 502(b) Permit Programs; and 504(a)-(c) Permit Requirements and Conditions; 40 CFR Part 64 Compliance Assurance Monitoring; 40 CFR Part 70 §§70.6(a)(3)(i)(B) and 70.6(c)(1) State Operating Permit Programs - Permit content. The Compliance Assurance Monitoring (CAM) rule applies to each Pollutant Specific Emission Unit (PSEU) at a major source that is required to obtain a part 70 or part 71 permit if the unit satisfies all of the following criteria:

- 1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant other than an emissions limitation or standard that is exempt under §64.2(b)(1) [exempt limitations include emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act],
- 2) The unit uses a control device to achieve compliance with any such limit or standard; and
- 3) The unit has pre-control device emissions of the applicable regulated pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

Based on the above noted criteria, the CAM requirement would apply to the Main Boiler at the Facility for PM & NO_x.

However, because the Facility has a NO_x CEMS, 40 CFR Part 64 §64.2(b)(vi) exempts the Permittee from the requirements of Part 64 for NO_x.

**Applicable Requirements from
Federal Regulations and the Clean Air Act**

Clean Air Act §112r Prevention of Accidental Release; 40 CFR Part 68 Chemical Accident Prevention Programs. Facilities that have more than the threshold quantity of a regulated substance in a process are subject to these provisions including the requirements to conduct a hazard assessment, establish a prevention program and develop a risk management plan.

This regulation does not apply to the Facility. The Permittee has stated that the Facility does not have more than the threshold quantity of a regulated substance and thus is not subject to these requirements.

40 CFR Parts 72, 73, 75, 76, 77, 78, Acid Rain Program

The Permittee is required to operate the Facility under a permit that includes the Acid Rain Program requirements. This section also requires that the Facility be equipped with a CEMS and meet additional recordkeeping and reporting requirements. The CEMS will include a stack flow monitor, a diluent monitor, a moisture monitor, a nitrogen oxide monitor and a carbon dioxide monitor.

40 CFR Part 98 Mandatory Greenhouse Gas Reporting. Requires reporting of GHG emissions annually to EPA for 1) facilities in source categories listed in §98.2(a)(1) including electric utility units subject to Acid Rain, MSW landfills that generate CH₄ in amounts equivalent to 25,000 metric tons of CO₂e or more per year and electrical transmission and distribution equipment at facilities where the total nameplate capacity of SF₆ and PFC containing equipment exceeds 17,820 pounds, 2) facilities in source categories listed in §98.2(a)(2) including electronics manufacturing, iron and steel production and pulp and paper manufacturing that emit 25,000 metric tons of CO₂e or more per year from such source categories as well as all stationary combustion, 3) facilities with stationary combustion sources that aggregate to 30 MMBtu/hr or more and which emit 25,000 metric tons of CO₂e or more per year from all stationary combustion sources combined, and 4) fuel suppliers including all local natural gas distribution companies.

The U.S. EPA has retained the implementing authority for this regulation and is responsible for determining applicability. This regulation under Part 98 is considered an applicable requirement per 40 CFR Part 70.2 and as noted in 74 FR 56260 (October 30, 2009). Part 98 is anticipated to apply to the Facility.

Emissions of CO₂ from biogenic sources are not included in the calculation of Facility CO₂ emissions. The emissions of CO₂ from non-biogenic sources, plus the CO₂ equivalent emissions of CH₄ and N₂O from the Facility do not exceed the 25,000-metric ton CO₂ equivalent emission threshold for reporting under 40 CFR Part 98.

The Permittee reported CO₂e emissions for 2010, 2011 & 2012. All three years were below 15,000 metric tons of CO₂e. 40 CFR Part 98 §98.2(i)(2) allows the Facility to discontinue annual reporting if three consecutive years are below 15,000 metric tons of CO₂e. In accordance with §98.2(i)(2), the Permittee notified the EPA of their intent to cease annual reporting. The Permittee must resume reporting if any future calendar year's emissions increases to 25,000 metric tons CO₂e per year or more.

(b) Non-Applicable Requirements

Pursuant to §5-1015(a)(14) of the *Regulations*, an owner or operator of a Facility may request a permit shield from specific state or federally enforceable regulations

and standards which are not applicable to the source. The Permittee has requested such a permit shield. The Agency has reviewed this request and is hereby granting a permit shield in accordance with §5-1015(a)(14) of the *Regulations* for the following requirements which have been determined not to be applicable to the Facility based on the information provided by the Permittee:

Non-Applicable Requirements for which a Permit Shield is Granted

Section 5-261 of the *Regulations*— Control of Hazardous Air Contaminants. The wood boiler (solid fuel burning equipment constructed prior to January 1, 1993) and all fuel burning equipment which combusts virgin liquid or gaseous fuel are exempt from this regulation per 5-261(1)(b)(2). Future physical modifications to the wood boiler that increase the rate of emissions from the boiler may be subject to Section 5-261.

Note that the ammonia (NH₃) emissions from the operation of the SCR system used for NO_x control are not exempt from §5-261 of the *Regulations*.

(c) Enforceability

All federal enforceable conditions are subject to federal citizen suit provisions. Condition (12)(f) is enforceable by the state authorities only. With the exception of Condition (12)(f) all conditions of this Permit are enforceable by both state and federal authorities.

(d) Compliance Certification

The Permittee is required by this Permit to certify compliance as part of its annual registration with the Agency pursuant to the requirements of Subchapter X of the *Regulations*. Additionally, this Permit requires the submission of semi-annual reports of monitoring records used to demonstrate compliance with the limitations contained in this Permit.

(G) HAZARDOUS MOST STRINGENT EMISSION RATE

Pursuant to §5-261 of the *Regulations*, any stationary source subject to the rule¹ the rule with current or proposed actual emissions of a hazardous air contaminant (HAC) equal to or greater than the respective Action Level (found in Appendix C of the *Regulations*) shall be subject to the Regulation and shall achieve the Hazardous Most Stringent Emission Rate (HMSER) for the respective HAC. HMSER is defined as a rate of emissions which the Secretary, on a case-by-case basis, determines is achievable for a stationary source based on the lowest emission rate achieved in practice by such a category of source and considering economic impact and cost. HMSER may be achieved through application of pollution control equipment, production processes or techniques, equipment design, work practices, chemical substitution, or innovative pollution control techniques.

¹ APCR §5-261(1)(c)(ii) provides that solid fuel burning equipment (not including incinerators) installed or constructed prior to January 1, 1993, and all fuel burning equipment which combust virgin liquid or gaseous fuel shall not be subject to the requirements of §5-261.

The Agency has determined that the Facility has regulated emissions of NH₃ in excess of its Action Level resulting from the operation of the SCR at the Facility. Therefore, the Facility must achieve HMSEER, as determined by the Secretary, pursuant to §5-261(2) of the *Regulations*.

The Agency has determined HMSEER for NH₃ to be an emission limit of 20 ppmvd at 6% O₂. This HMSEER evaluation shall be subject to re-evaluation five (5) years from the date of its determination and shall remain in effect until revised by the Agency. This and prior HMSEER determinations for this Facility are presented below.

Hazardous Most Stringent Emission Rate Determinations		
Date of Determination/Permit #	Pollutant	Description/Emission limit
April 21, 2008 #AOP-07-020 Re-authorized: #AOP-12-005	NH ₃	Emission limit of 20 ppmvd ¹ , corrected to 6% O ₂ , based on an 8 hour rolling average.

¹ ppmvd – parts per million by volume on a dry basis.

(H) EQUIVALENCY DETERMINATIONS

Where more than one standard or limit applies, the Facility will be held to the most stringent limit. The following tables summarize various regulatory requirements and their respective emission standards or limits that apply to this Facility: The most stringent limits have been noted.

Visible Emission Standards:

Visible Emission Standards – Main Boiler – Wood, Fuel Oil or Natural Gas		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.42a(b)	20% or less opacity except for one 6 minute period in any hour where emissions may not exceed 27% opacity. Does not apply to startup, shutdown and malfunction.
X	§5-211(2) and (3) of the <i>Regulations</i>	20% opacity for periods aggregating to more than 6 minutes in any hour.

Particulate Matter Emission Standards:

PM Emission Standards – Main Boiler – Wood Combustion		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.42a(a)	0.03 lb/MMBtu
	§5-231(3)(b)(iii) of the <i>Regulations</i>	0.10 gr/dscf (corrected to 12% CO ₂)
X	MSER: AP-89-010, September 15, 1989	0.007 gr/dscf (corrected to 12% CO ₂) equivalent to 0.02 lb/MMBtu

PM Emission Standards – Main Boiler – Fuel Oil Combustion		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.42a(a)	0.03 lb/MMBtu
	§5-231(3)(a)(ii) of the <i>Regulations</i>	0.11 gr/dscf
X	MSER: AP-89-010, September 15, 1989	0.007 gr/dscf (corrected to 12% CO ₂) equivalent to 0.02 lb/MMBtu

PM Emission Standards – Main Boiler – Natural Gas Combustion		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.42a(a)	0.03 lb/MMBtu
	§5-231(3)(a)(iii) of the <i>Regulations</i>	0.10 gr/dscf (corrected to 12% CO ₂)
X	MSER: AP-89-010, September 15, 1989	0.007 gr/dscf (corrected to 12% CO ₂) equivalent to 0.02 lb/MMBtu

Sulfur Dioxide Emissions:

SO₂ Emission Standards – Main Boiler – Wood or Natural Gas Combustion		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.42a(d)	1.2 lb/MMBtu
	§5-252 of the <i>Regulations</i>	0.8 lbs/MMBtu
X	MSER: AP-89-010, September 15, 1989	Wood: 0.0083 lbs/MMBtu Natural Gas: 0.0006 lb/MMBtu

SO₂ Emission Standards – Main Boiler – Fuel oil Combustion		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.42a(d)	1.2 lb/MMBtu
	§5-252 of the <i>Regulations</i>	0.8 lbs/MMBtu
	MSER: AP-89-010, September 15, 1989	Oil: 0.30 lbs/MMBtu
X	§5-221(1)(a)(ii) & (iii) of the <i>Regulations</i>	Sulfur limitations in Fuel: Until 6/30/2018: 0.05% by weight; equivalent to 0.051 lb/MMBtu SO ₂ After 6/30/2018: 0.0015% by weight; equivalent to 0.0015 lb/MMBtu SO ₂

Nitrogen Oxide Emissions:

NO_x Emission Standards – Main Boiler – Wood Combustion		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.44a(a)	0.60 lb/MMBtu
	MSER: AP-89-010, September 15, 1989	0.249 lb/MMBtu
X	RACT §1010 of the <i>Regulations</i> , April 21, 2008	0.075 - 0.23 lb/MMBtu

NO_x Emission Standards – Main Boiler – Fuel Oil Combustion		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.44a(a)	0.30 lb/MMBtu
	§5-251(1)(b) of the <i>Regulations</i>	0.30 lb/MMBtu
	MSER: AP-89-010, September 15, 1989	0.30 lb/MMBtu
X	RACT §1010 of the <i>Regulations</i> , April 21, 2008	0.075 - 0.23 lb/MMBtu

NO_x Emission Standards – Main Boiler – Natural Gas Combustion		
Most Stringent	Regulatory Authority	Standard or Limit
	40 <i>CFR</i> Part 60 Subpart Da §60.44a(a)	0.20 lb/MMBtu
	§5-251(1)(a) of the <i>Regulations</i>	0.20 lb/MMBtu
X	MSER: AP-89-010, September 15, 1989	0.13 lb/MMBtu

Based on the Agency's review of the Facility's application and the above Findings of Fact, the Agency concludes that the Facility, subject to the following Permit conditions, complies with all applicable state and federal air pollution control laws and regulations or is subject to an acceptable schedule of compliance. Therefore, pursuant to 10 VSA §§556 and 556a, as amended, the Agency hereby issues a Permit approving the Facility, as described in the above Findings of Fact, subject to the following:

PERMIT CONDITIONS

- Construction and Equipment Specifications -

- (1) The Permittee shall construct and operate the Facility in accordance with the plans and specifications submitted to the Agency and in accordance with the conditions set forth herein, including the equipment specifications as listed in Findings of Fact (A) or their equivalent as approved by the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§5-501(1) of the *Regulations*] [Original Agency Approval to Construct: May 2, 1980] [Applications for #AP-89-010, AP-89-010b, #AOP-07-020, and #AOP-07-020a]
- (2) The Main Boiler shall be equipped with mechanical collectors in series with an electrostatic precipitator ("ESP"), flue gas recirculation system and regenerative selective catalytic reduction system ("RSCR"). Further, the mechanical collectors and electrostatic precipitator shall be maintained in good working order and operated whenever wood is being combusted, and the flue gas recirculation system shall be maintained in good working order and used as needed during main boiler operation on natural gas to maintain NOx emissions below current permit limits. [10 V.S.A. §556(c) and 1/22/92 AOD] [Application for #AOP-89-10b and #AOP-07-020]
- (3) Main Boiler - Distillate Oil/Natural Gas Burners:
 - (a) The Permittee shall install and operate only three (3) Forney PAF low-NOx burners, or equivalent, capable of firing both natural gas and oil in the Main Boiler. These burners shall be equipped with nozzles having a maximum capacity of firing distillate oil at a rate of nine gallons per minute each.
 - (b) Modification by the Permittee of the three (3) natural gas only fired Forney PAF low-NOx burners to allow combustion of distillate oil shall be permitted only if the Permittee receives prior written approval from the Agency for said modification.

[10 V.S.A. §556(c)] [Original Agency Approval to Construct: May 2, 1980] [Application for #AP-89-010]
- (4) Auxiliary Boiler and Used Oil Heater:
 - (a) The Auxiliary Boiler shall have a maximum rated heat input of four (4) MMBtu/hr or less and shall operate on distillate oil or natural gas fuel. [10 V.S.A. §556(c)]
 - (b) The Used Oil Furnace shall have a maximum rated heat input of 0.28 MMBtu/hr or less and shall burn only distillate oil or used oil which complies with the properties

and constituent limitations identified in Table A of §5-221(2) of the *Regulations*, as amended. The Permittee shall comply with all necessary requirements for handling, storage, and disposal of used oil specified in the Vermont Hazardous Waste Management Regulations. [10 V.S.A. §556(c) and §5-221(2) of the *Regulations*]

- (5) Stack Heights: The exhaust gases from the Main Boiler shall be vented vertically through a 10-foot diameter stack which extends a minimum of two hundred fifty seven (257) feet above the stack base grade elevation. The exhaust gases from the Auxiliary Boiler shall be vented vertically through a 12-inch diameter stack which extends a minimum of one hundred twenty eight (128) feet above the stack base grade elevation.

For all other non-fugitive emission points at the Facility, the Agency recommends that they each be exhausted vertically through a stack(s) which extend a minimum of four (4) feet above the roof where the stack penetrates the roof and that they not be equipped with any device that may obstruct the upward discharge of the exhaust gases such as a fixed rain cap of a type that has not been approved by the Agency. The Agency may require the Permittee to increase the stack height, remove a rain cap, or conduct a dispersion analysis to verify compliance with ambient air quality standards for any stack at the Facility if, in the judgment of the Agency, adequate dispersion cannot be maintained at the current stack configuration. Adequacy may in part be based on the actual emission rate of air contaminants, the characteristics of the current stack configuration, or inspections of the Facility that indicate poor dispersion or that confirm significant visible emissions or nuisance or odor beyond the property line. [10 V.S.A. §§556(c) and 556a(d)] [§5-406 of the *Regulations*]

- Operational Limitations -

- (6) Main Boiler - Wood Fuel:
- (a) The Permittee shall use as solid fuel for the McNeil Station only wood fuel uncontaminated by preservatives, oils, herbicides, or similar foreign substances. Use by the Permittee of any other type of wood such as railroad ties, shall be allowed only if the Permittee receives prior written approval from the Agency.
 - (b) In order for the Permittee to obtain written approval for long term use (i.e., one (1) year or longer in duration) of wood fuel containing materials prohibited above, the Permittee shall submit an application and seek approval through an amendment of this Permit consistent with the requirements of Subchapters V and X of the *Regulations*. Upon application by the Permittee and at the discretion of the Secretary of the Agency, the Agency may grant written approval to the Permittee for short-term use of such fuel without a permit amendment.
 - (c) Chip Management Plan: The Permittee shall manage the wood chips in accordance with the "Wood Procurement and Storage Plan", including exhibits A through D, enclosed with a letter from Robert Fletcher, Esq., dated March 25, 1986 and any later amendments to the plan.

[10 V.S.A. §556(c)]

- (7) Mail Boiler – Supplemental Distillate Fuel: Only No.2 fuel oil, or lighter grade fuel oils, with a maximum sulfur content not to exceed 0.05 percent by weight may be used as a supplemental fuel in the Main Boiler unless the Permittee obtains prior written approval from the Agency to use another type of supplemental fuel.

Commencing on July 1, 2018, the sulfur content of No.2 and lighter distillate oils shall not exceed 0.0015 percent by weight. [10 V.S.A. §§556(c) and 556a(d)] [§§5-501 and 5-1015(a)(1) of the Regulations] [§5-221(1)(a) of the Regulations]

- (8) Main Boiler and Auxiliary Boiler: In accordance with 40 *CFR* Part 63 Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial and Institutional Boilers at area sources), the Permittee shall comply with the following applicable requirements for oil and wood fired boilers as well as all other applicable requirements of this regulation:
- (a) Periodic tune-ups of the boiler(s) as required by 40 *CFR* §63.11223.
 - (b) A one-time energy assessment of the boilers as well as the rest of the Facility as required by 40 *CFR* §63.11201(b). This provision only applies to existing facilities with one or more boilers of 10 MMBtu/hr heat input or greater that were installed prior to June 4, 2010. The energy assessment must be completed by March 21, 2014.
 - (c) Notification, reporting and recordkeeping requirements as specified in §63.11225. This includes:
 - (i) §63.11225(a)(2): Initial Notification:
 - a. For boilers installed prior to June 4, 2010 the initial notification must be sent to the EPA no later than January 20, 2014. The Initial Notification was received by the Agency on September 16, 2011
 - (ii) §63.11225(a)(4): Notification of Compliance Status:
 - a. Notification of the initial tune-up of the boiler must be submitted no later than July 19, 2014 for boilers installed prior to June 4, 2010.
 - b. Notification of the completion of the energy assessment must be submitted no later than July 19, 2014.
 - (iii) By March 1 of each year following a periodic tune-up of the Main boiler and/or the auxiliary boiler, the Permittee shall submit a compliance certification report as required by §63.11225(b).
 - (iv) All records, reports and notifications that are required by this regulation shall be submitted to the Agency as well as the U.S. Environmental Protection Agency.

[40 *CFR* Part 63 Subpart JJJJJJ] [40 *CFR* Part 63]

- (9) Generators/Engines: The Permittee shall not install or operate a stationary reciprocating internal combustion engine, as defined in the *Regulations*, unless the engine complies with §5-271 of the *Regulations* as may be applicable as well as any federal regulations including 40 *CFR* Part 60 Subpart IIII and 40 *CFR* Part 63 Subpart ZZZZ, as may be applicable. All engines, including emergency generators/engines, installed on or after July 1, 2007 must comply with the applicable emission standards (Tier 2) of §5-271 immediately upon installation. Installation of any size engine, even those below 450 bhp, may still require approval from the Agency in the form of an amended permit prior to installation. Stationary reciprocating internal combustion engines include those used to power electric generator sets or to provide shaft power for other equipment such as compressors but does not include engines used to power motor vehicles. [10 V.S.A. §§556(c) and 556a(d)] [§§5-271 and 5-501 of the *Regulations*] [40 *CFR* Part 60 Subpart IIII and Part 63 Subpart ZZZZ]
- (10) Open Burning: Open burning is prohibited except as provided for in §5-202 of the *Regulations*. Prior to conducting open burning of any material, other than leaves, brush, or tree cuttings from normal grounds maintenance, the Permittee shall contact the Air Pollution Control Officer and obtain approval for such burning, if required. [10 V.S.A. §§556(c) and 556a(d)] [§5-202 of the *Regulations*]

- Emission Limitations -

(11) Particulate Matter

- (a) Total Particulate Matter: When firing wood fuel, the Permittee shall not cause to be emitted from the Main Boiler any gases that contain total particulate matter in excess of 0.10 grains per dry standard cubic foot (dscf) of exhaust gas corrected to twelve percent carbon dioxide (gr/dscf @ 12% CO₂). Total particulate matter is defined as the sum of filterable and condensable particulate matter.

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with Title 40 *Code of Federal Regulations* Part 60, Appendix A, Reference Method 5 for filterable PM and Methods 5 and Part 51, Appendix M, Reference Method 202 for total PM, or an alternative method which has been published in 40 *CFR*, provided the federally approved alternative method has been accepted in writing by the Agency before testing. The sampling time for each test run on the Main Boiler shall be at least 120 minutes and the minimum sampling volume shall be sixty (60) dry standard cubic feet.

[10 V.S.A. §556(c), §5-502(3)(a)(i) and 5-231(3)(b)(iii) of the *Regulations*] [40 *CFR* Appendix A-3 to Part 60 and Appendix M to Part 51]

- (b) Filterable Particulate Matter: When firing any fuel or combination of fuels and under any operating load, the Permittee shall not cause to be emitted from the Main Boiler any gases that contain particulate matter in excess of 0.007 grains per dry standard cubic foot (dscf) of exhaust gas corrected to twelve percent carbon dioxide (gr/dscf @ 12% CO₂) and 9.7 pounds per hour (lbs/hr).

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with Title 40 *Code of Federal Regulations* Part 60, Appendix A, Reference Method 5 for filterable PM, or an alternative method which has been published in 40 *CFR*, provided the federally approved alternative method has been accepted in writing by the Agency before testing. The sampling time for each test run on the Main Boiler shall be at least 120 minutes and the minimum sampling volume shall be sixty (60) dry standard cubic feet. [10 V.S.A. §556(c) and §5-502(3)(a)(i) of the *Regulations*] [40 *CFR* Appendix A-3 to Part 60 and Appendix M to Part 51]

- (c) Total particulate matter emissions from the Auxiliary Boiler shall not exceed 0.5 lbs/MMBtu of heat input. [§5-231(3)(a)(i) of the *Regulations*]
- (d) The Permittee shall record the on/off status of the Main Boiler's ESP transformers/rectifiers (T/R) at all times. The Permittee shall record the ESP T/R primary and secondary voltage and current reading at least once each operating day. The daily ESP T/R meter readings shall be submitted to the Agency for each calendar quarter within thirty (30) days after the close of each quarter. A record of daily ESP T/R meter readings shall be kept electronically for at least five (5) years. [§5-1015(a)(3) of the *Regulations*] [40 *CFR* Part 70 §70.6(a)(3)]

(12) Nitrogen Oxides

- (a) The NO_x emission rate attributable to wood fuel fired in the Main Boiler shall not exceed 0.23 lb/MMBtu of heat input and 145 lb/hr;
- (b) The NO_x emission rate attributable to distillate fuel oil fired in the Main Boiler shall not exceed 0.23 lb/MMBtu and 57.5 lbs/hr;
- (c) The NO_x emission rate attributable to natural gas fired in the Main Boiler shall not exceed 0.13 lb/MMBtu and 88 lbs/hr;
- (d) When natural gas is fired simultaneously with any other fuel in the Main Boiler, the applicable NO_x standard shall be determined by proration using the following formula:

$$E_{NO_x} = (0.13w + 0.23x)/100$$

where:

E_{NO_x} = the NO_x emission standard, in units of lb/MMBtu, when multiple fuels are combusted simultaneously;

w = the percentage of total heat input derived from natural gas;

x = the percentage of total heat input derived from distillate fuel oil, wood and biomass gas.

At no time shall the NO_x emission rate exceed 145 lbs/hr. The term "combusted

simultaneously" as it applies to the above proration formula shall mean any calendar hour during which natural gas and any other fuel are actually fired coincident with each other for forty-five (45) minutes or more. The standard for any hours with some co-firing of fuels but less than forty-five (45) minutes of actual coincident firing shall have allowable emission rates of 0.23 lb/MMBtu and 145 lbs/hr.

- (e) Compliance with the above NOx emission limits shall be determined by means of continuous emission monitoring as required in this Permit on the basis of continuously rolling eight-hour average values during actual operating hours when burning each respective fuel (or combination). At the Secretary's discretion, compliance shall, alternatively, be determined by using Federal Reference Method 7E (40 CFR Part 60, Appendix A).[10 V.S.A. §556(c) and §5-502(3)(a)(i) of the Regulations]
- (f) The NOx emission rate from the Main Boiler, when burning any fuel, shall not exceed 0.075 lb/MMBtu, based on a calendar quarterly average. Compliance with this NOx emission limit shall be determined by means of continuous emission monitoring as required in this permit.

Notwithstanding the foregoing, if the Permittee is ordered-to-operate by ISO New England or Vermont Electric Power Company as part of a regional capacity or reliability event during a time when the NOx SCR system is not operational due to reasons beyond the reasonable control of the Permittee, such periods and resulting NOx emissions may be excluded from the calculation of the calendar quarter average. At the completion of each calendar quarter NOx compliance period, the Permittee shall provide for each ordered-to-operate event that is proposed to be excluded from the calendar quarter NOx average, a signed affidavit by an authorized representative of Permittee acknowledging that it was ordered to operate as part of a regional capacity or reliability event and the Permittee's claim or basis for why proper operation of the SCR system was beyond its reasonable control. [§5-1010 of the *Regulations*][Enforceable by State Only]

- (g) The NOx emission rate from the Main Boiler when burning any fuels shall not exceed 493 tons for any rolling 12 month period. Compliance with this standard shall be determined by means of hourly continuous emission monitoring as required in this Permit. [Permit #AOP-01-057]

(13) Carbon Monoxide

- (a) The CO emission rate shall not exceed 1,500 parts per million, determined on a volume basis and a one-hour averaging time, at the outlet of the Main Boiler when combusting wood, either alone or in combination with another fuel.
- (b) The Main Boiler shall be equipped with a CO monitor, located at the outlet of the boiler, in order to assist in the operation of the fuel burning equipment to minimize the formation of CO. The specifications and operational characteristics of the CO monitor shall be approved by the Agency prior to installation. The CO monitor shall not be considered as part of the CEMS, but quality assurance procedures for this

monitor shall be contained in the QA Plan required in of this Permit. Also, the quarterly reports required in this Permit shall include CO emission data collected and recorded in said quarter, as well as a summary of the frequency distribution of all data collected. The CO monitor shall be used to satisfy the periodic monitoring requirements of §5-1015(a)(3) of the *Regulations* and 40 *CFR* Part 70 §70.6(a)(3)(i)(B). [10 V.S.A. §556(c) and §5-502(3)(a)(i) of the *Regulations*]

(14) Sulfur Dioxide

- (a) The SO₂ emission rate attributable to distillate fuel oil fired in the Main Boiler shall not exceed 0.051 lbs/MMBtu and 13 lbs/hr. [10 V.S.A. §556(c)] [§5-221(1)(2)(ii) and §5-502(3)(a)(i) of the *Regulations*]
- (b) Compliance with the above SO₂ emission limits shall be determined based on the sulfur content of the fuel. At the Secretary's discretion, compliance with the above standards shall be determined by using Federal Reference Method 6C (40 *CFR* Part 60, Appendix A). [10 V.S.A. §556(c)]
- (c) The SO₂ emissions from the Main Boiler shall not exceed 39 tons per rolling twelve month period. Compliance with the annual limit shall be determined by Equation F-23 of 40 *CFR* Part 75, Appendix F, Section 7 using the calculated Custom Default Sulfur Dioxide Emission Rate (E) from the following equation. However, the Agency may require an alternative method of compliance determination (such as the use of a sulfur dioxide continuous emission monitor) in response to changes in the amount of distillate fuel oil combusted in the Main Boiler.

$$E = \sum_{i=1}^3 E_i / 3$$

$$E_i = (\%t_{ig\&w})(0.0006 \text{ lb/MMBtu}) + (\%t_{oil})(E_{oil})$$

$$E_{oil} = (20000)(\%S_i)/GCV_i$$

Where:

- E** = Custom default sulfur dioxide emission rate, lb/MMBtu
E_i = Sulfur Dioxide emission rate for year *i*, lb/MMBtu
i = Each year in the three year period immediately preceding the year for which E is being calculated
E_{oil} = Sulfur dioxide emission rate of oil delivered in year *i*, lb/MMBtu
%t_{ig&w} = Percent of total operating hours when gas or wood is combusted in year *i*.
%t_{oil} = Percent of total operating hours when oil is combusted in year *i*.
%S_i = Annual average percent sulfur, by weight, of oil delivered in year *i*.
GCV_i = Annual average gross calorific value of oil delivered in year *i*, Btu/lb.

[10 V.S.A. §556(c)]

- (15) Ammonia (NH₃)
- (a) Emissions of NH₃ from the Main Boiler shall not exceed 20 parts per million by volume on a dry basis (ppmvd) corrected to 6% oxygen whenever the NOx SCR system is operating.
 - (b) NH₃ shall only be added to the exhaust gas in conjunction with the proper operation of the SCR system.
 - (c) Compliance with the above NH₃ emission limits shall be determined by means of continuous emission monitoring as required in this Permit on the basis of continuously rolling eight-hour average values during actual operating hours. [10 V.S.A. §556(c)] [§5-501 and §5-261(2) of the *Regulations*]
- (16) **Visible Emissions:** Emissions of visible air contaminants from stacks and vents at the Facility, except where otherwise noted in this Permit, shall not exceed twenty (20) percent opacity for more than a period or periods aggregating six (6) minutes in any hour and at no time shall visible emissions exceed sixty (60) percent opacity.
- Compliance with the above visible emission standards for the Main Boiler shall be determined by means of continuous opacity monitoring system. For all other installations and operations at the Facility, any emission testing conducted to demonstrate compliance with the above emission limits shall be performed in accordance with 40 *CFR* Part 51, Appendix M, Methods 203B and 203C, respectively, or equivalent methods approved in writing by the Agency, or an equivalent method approved in writing by the Agency. [§§5-211(2), 5-211(3) and 5-404 of the *Regulations*]
- (17) **Volatile Organic Compounds:** Emissions of volatile organic compounds from the Facility shall not equal or exceed fifty (50) tons per year based on any rolling twelve (12) consecutive calendar month period. [10 V.S.A. §§556(c) and 556a(d)] [§5-502 of the *Regulations*]
- (18) **Hazardous Air Pollutants:** Emission of federally regulated hazardous air pollutants (HAPs) from the Facility shall not equal or exceed ten (10) tons per year of any single HAP or twenty-five (25) tons per year of all HAPs combined per year based on any rolling twelve (12) consecutive calendar month period. [40 *CFR* Part 63]

The annual combined and individual HAP emissions from the Facility shall be calculated according to the following methodology:

a) Total HAP Emissions (<25 tons/year)

Annual Total HAP Emissions = The sum of the Monthly Total HAP Emissions during the previous 12-month period, where:

Monthly Total HAP Emissions =

$$[(EF_{\text{wood}}) * (HHV_{\text{wood}}) * (\text{monthly wood fuel usage in wet, as-fired tons}) + (EF_{\text{distillate}}) * (HHV_{\text{distillate}}) * (\text{monthly distillate fuel usage in gallons}) + (EF_{\text{natural gas}}) * (HHV_{\text{natural gas}}) * (\text{monthly natural gas usage in standard cubic feet})] / (2000 \text{ lb/ton})$$

Where:

$EF_{\text{wood}} = 5.0\text{E-}03$ lb/MMBtu, or as determined and approved below.

$HHV_{\text{wood}} = 8.5$ MMBtu/ton of wet, as-fired wood; or a site-specific value.

$EF_{\text{distillate}} = 4.44\text{E-}04$ lb/MMBtu

$HHV_{\text{distillate}} = 0.14$ MMBtu/gallon

$EF_{\text{natural gas}} = 1.85\text{E-}03$ lb/MMBtu

$HHV_{\text{natural gas}} = 0.00102$ MMBtu/standard cubic foot

The total HAP emissions factor for wood (EF_{wood}) shall be based on the following table:

Detail of Total HAP Emission Factor for Wood (lb/MMBtu)		
HAP	CAS #	HAP Fraction Emission Factor
Methanol	67-56-1	8.30E-04
Chlorine	7782-50-5	7.90E-04
Benzene	71-43-2	7.80E-04
Dichloromethane (Methylene Chloride)	75-09-2	5.40E-04
Formaldehyde	50-00-0	4.60E-04
Hexane	110-54-3	2.90E-04
Acetaldehyde	75-07-0	1.90E-04
All other HAPs	---	1.11E-03
Total EF_{wood}		5.0E-03

As required by Condition (26(f)) of this Permit, the Permittee shall conduct periodic stack emission testing for the seven listed individual HAPs. Where the site-specific testing results for an individual HAP, as determined by the Agency, is greater than its respective value in the above table, then the site-specific testing result shall be used in the calculations of the Total EF_{wood} . Where the site-specific testing results for an individual HAP, as determined by the Agency, are lower than its respective value in the above table, then the Permittee may at their discretion, use the site-specific testing result to calculate the Total EF_{wood} .

b) Individual HAP Emissions (each < 10 tons/year)

Annual Individual HAP Emissions = The sum of each Individual Monthly HAP Emission during the previous 12-month period, where:

Monthly Individual HAP Emission =

$$\left[(IEF_{\text{wood}}) * (HHV_{\text{wood}}) * (\text{monthly wood fuel usage in wet, as-fired tons}) + (IEF_{\text{distillate}}) * (HHV_{\text{distillate}}) * (\text{monthly distillate fuel usage in gallons}) + (IEF_{\text{natural gas}}) * (HHV_{\text{natural gas}}) * (\text{monthly natural gas usage in standard cubic feet}) \right] / (2,000 \text{ lb/ton})$$

Where emissions are evaluated each month for each individual HAP in the following table:

Individual HAP Emission Factors (lb/MMBtu)				
HAP	CAS #	IEF _{wood}	IEF _{distillate}	IEF _{natural gas}
Methanol	67-56-1	8.30E-04	- ²	- ²
Chlorine	7782-50-5	7.90E-04	- ¹	- ¹
Benzene	71-43-2	7.80E-04	1.53E-06	2.06E-06
Dichloromethane (Methylene Chloride)	75-09-2	5.40E-04	-- ¹	-- ¹
Formaldehyde	50-00-0	4.60E-04	3.43E-04	7.35E-05
Hexane	110-54-3	2.90E-04	- ²	1.76E-03
Acetaldehyde	75-07-0	1.90E-04	- ²	- ²

¹ Emissions of certain HAPs and chlorinated compounds are typically negligible from the combustion of commercially available fossil fuels.

² No emission factors listed in AP-42.

The HHV and fuel usage for each fuel used in the calculation of each Monthly Individual HAP Emission shall be the same HHV and fuel usage as used in the calculation of the corresponding Monthly Total HAP Emissions.

As required by Condition (22)(e) of this Permit, the Permittee shall conduct periodic stack emission testing for the seven listed individual HAPs. Where the site-specific testing results for an individual HAP, as determined by the Agency, is greater than its respective value in the above table, then the site-specific testing result shall be used in the calculations of the Total EF_{wood}. Where the site-specific testing results for an individual HAP, as determined by the Agency, are lower than its respective value in the above table, then the Permittee may at their discretion, use the site-specific testing result to calculate the Total EF_{wood}. [10 V.S.A. §556(c) and §§5-404 and 5-405 of the *Regulations*] [40 CFR Part 63]

- (19) Hazardous Air Contaminants: Emissions of state hazardous air contaminants (HACs) from the applicable operations at the Facility shall not equal or exceed their respective Action Level (found in Appendix C of the *Regulations*) unless the Agency has reviewed and approved such HAC emission under §5-261(3) of the *Regulations*. [10 V.S.A. §§556(c) and 556a(d)] [§5-261 of the *Regulations*]
- (20) Fugitive Particulate Matter Emissions: The Permittee shall take reasonable precautions at all times to control and minimize emissions of fugitive particulate matter from the operations at the Facility. This shall include but not be limited to the following:
- (a) Taking precautions to prevent fugitive particulate matter (i.e. wood dust) during the handling of wood chips and other wood fuels. The railcar unloading enclosure, including curtains and windscreens, shall be properly maintained. All woodchip rail car unloading shall occur within this enclosure. The Agency may require additional dust control measures, such as requiring an enclosed chute or stocking be used to limit the drop distance, based on Agency inspections of the actual operations.

- (b) The use of wet suppression, calcium chloride applications or other dust control measures as necessary to minimize fugitive dust from all unpaved roads and traffic areas, aggregate handling operations and storage piles at the Facility. The paved portions of the haul roads and traffic areas shall be periodically sprayed with water and swept to prevent buildup of material that may generate fugitive dust emissions.
- (c) The covering of all trucks owned or operated by the Permittee while operated on public roadways and loaded with materials that may generate fugitive dust emissions; and
- (d) Techniques such as, but not limited to, enclosing or spraying with surfactant shall be employed by the Permittee to prevent particulate matter from becoming airborne from the handling and transportation of ash.

[10 V.S.A. §§556(c) and 556a(d)] [§5-231(4) of the *Regulations*]

- (21) Nuisance and Odor: The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants, or odors beyond the property line of a premises, which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury or damage to business or property. [10 V.S.A. §§556(c) and 556a(d)] [§5-241(1) of the *Regulations*]

- Compliance Testing and Monitoring -

- (22) Main Boiler - Compliance Testing and Monitoring:
- (a) Continuing compliance with the particulate matter emission standards specified in Condition (11)(11) (total PM) and (11)0 (filterable PM) of this Permit shall be determined by biennial emissions testing, to be conducted beginning in 2018 and every other year thereafter. The Permittee shall conduct such testing and furnish the Agency with a written report of the results of such testing within 60 days of the test date. At least thirty (30) days prior to the re-testing, the Permittee shall submit a pre-test report prepared in accordance with the Agency's "Source Emission Testing Guidelines".
 - (b) Continuing compliance with the visible air contaminant emission standards specified in Condition (16) of this Permit shall be determined by means of continuous opacity monitoring system (COMS), as required in Condition (24) of this Permit. At the Secretary's discretion, compliance shall, in the alternative, be determined by observations by a trained observer in accordance with 40 *CFR* Part 51, Appendix M, Methods 203B and 203C, respectively, or equivalent methods approved in writing by the Agency.
 - (c) Continuing compliance with the nitrogen oxides and carbon monoxide emission standards specified in Conditions (12) & (13) of his Permit shall be determined by means of continuous emission monitoring, as required in Condition (24) of this Permit
 - (d) Continuing compliance with the ammonia emission standard specified in Condition 0 of this Permit shall be determined by continuous emission monitoring, as required in Condition (30) of this Permit.

(e) Continuing compliance with the hazardous air pollutant (HAP) emissions standard specified in Condition (18) of this Permit shall be determined by emissions testing for the following compounds:

- Formaldehyde 50-00-0
- Benzene 71-43-2
- Acetaldehyde 75-07-0
- Methanol 67-56-1
- Chlorine 7782-50-5
- Hexane 110-54-3
- Dichloromethane (methylene chloride) 75-09-2

Emissions testing for these compounds shall be conducted beginning in calendar year 2019 and every four (4) years thereafter. The Permittee shall conduct such testing and furnish the Agency with a written report of the results of such testing within ninety (90) days after the test date. At least thirty (30) days prior to the re-testing, the Permittee shall submit a pre-test report prepared in accordance with the Agency's "Source Emission Testing Guidelines". [10 V.S.A. §§556(c) and 556a(d)] [§§5-402, 5-404(1) and 5-405(1) of the *Regulations*] [40 *CFR* 60.8]

- Compliance Assurance Monitoring -

(23) Main Boiler - Compliance Assurance Monitoring (CAM) – Particulate Matter

Indicator	Opacity	ESP Power
Measurement Method	Continuous Opacity Monitoring System (COMS) as specified in Condition (24)	A - Automatic record the on/off status of the 18 fields. B – ESP secondary voltage & current are measured for each field to determine the power to each ESP.
Indicator Range	0 - 7% opacity >7% is an excursion. An excursion triggers an inspection, corrective action and a reporting requirement.	A – Normal condition is for each field to be on line. An excursion occurs if fewer than 5 fields on either side are on line. B – An excursion occurs if the secondary total power input is less than 80 kW. An excursion triggers an inspection, corrective action and a reporting requirement.
Measurement location	Main stack	Transformer-rectifier
Frequency	Continuous	A - On/off status: continuous B – Inspect at least once/shift, record daily
Averaging Period	1-hour	A – Not applicable B – Not applicable

The Permittee shall submit a summary report for each calendar quarter, within thirty (30) days after the close of the quarter, in a format acceptable to the Agency. The summary shall contain information on the number, duration, value (% opacity) and cause

(including unknown cause, if applicable) of excursions (as defined in (c) of this condition) and any corrective actions taken. In addition, the on/off field status and ESP voltage and current readings shall be provided for each reported excursion. If there are no excursions to report, then "none" or an equivalent statement shall be indicated. The report shall include a summary of the invalid 1-hour COMS averages with duration, cause and corrective action and the valid % data capture value.

[40 CFR Part 64]

- (a) The Permittee shall install, operate and maintain a continuous opacity monitoring system as specified in Condition of this Permit to measure and permanently record visible emissions, as % opacity, discharged to the atmosphere from the Main Boiler exhaust. In addition, the Permittee shall automatically record electronically the on/off status of the 18 fields of the electrostatic precipitator (ESP) using the onsite control system and visually determine the ESP operating status once per operating shift by observing the appropriate gauges, and record the transformers/rectifiers primary and secondary voltage and current reading once per day.
- (b) When the Main Boiler is operating, 1-hour average % opacity data shall be recorded electronically by the COMS. At a minimum, the COMS shall record a measurement at least every 10 seconds. Six, 10-second readings shall be used to calculate 1-minute averages. Valid 1-hour % opacity averages shall consist of a minimum of 45 valid 1-minute % opacity averages recorded during each clock hour.
- (c) An excursion is defined as a valid 1-hour % opacity average greater than 7 % opacity (i.e., the "indicator range"). [40 CFR Part 64.6 (c)]
- (d) If the Permittee maintains the 1-hour % opacity averages at or below 7 % opacity when the Main Boiler is operating, this will provide a reasonable assurance that the facility is operating in compliance with the particulate matter emission limits in the Permit, and no reporting or corrective action is necessary. Once an excursion is measured as defined in (c) of this Condition, the Permittee shall immediately record the present voltage and current readings from the ESP (using local gauges; consistent with permit Condition (11)(d)) and continue recording the ESP voltage and current readings once during each 12-hour operating shift as long as the excursion continues. During excursion periods, the Permittee shall also verify and document the on/off field status using automated electronic records and shall perform appropriate and timely corrective action to reduce emissions and return operations to a point that results in 1-hour % opacity averages below the indicator range.
- (e) The Permittee shall record valid 1-hour % opacity averages for at least 90% of the ESP operating hours, based on a calendar quarter.
- (f) If the indicator range is determined to be inadequate to reasonably assure compliance with Condition (11), the Permittee shall propose a permit modification to the Agency requesting the re-establishment of the indicator range value. Any

changes to the indicator range shall take effect only upon written approval by the Agency.

- (g) The Permittee shall submit a summary report for each calendar quarter, within thirty (30) days after the close of the quarter, in a format acceptable to the Agency. The summary shall contain information on the number, duration, value (% opacity) and cause (including unknown cause, if applicable) of excursions (as defined in (c) of this condition) and any corrective actions taken. In addition, the on/off field status, the ESP voltage and current readings shall be provided for each reported excursion. If there are no excursions to report, then "none" or an equivalent statement shall be indicated. The report shall include the daily transformers/rectifiers primary and secondary voltage and current readings. The report shall include a summary of the invalid 1-hour COMS averages with duration, cause and corrective action and the valid % data capture value.
- (h) The Permittee shall maintain all COMS records consistent with Condition (24) of this Permit. Other records used to comply with this Condition shall be stored for a minimum of five (5) years in a format suitable for inspection.
- (i) Nothing in this Condition shall restrict or abrogate the authority of the Agency or USEPA to take any enforcement action for any violation of an applicable requirement or of any person to take action under section 304 of the Clean Air Act (42 U.S.C. 7401, et seq., as amended).

[40 CFR Part 64]

- Continuous Emissions Monitoring -

- (24) The Permittee shall maintain a continuous emission monitoring system (CEMS) and continuous opacity monitoring system (COMS) approved by the Agency, to measure and permanently record, emissions of NO_x in ppm, lb/MMBtu, lb/hr, NH₃ ppmvd emissions, O₂ or CO₂ content, stack gas volumetric flow rate and visible emissions discharged to the atmosphere from the Main Boiler exhaust. The Permittee shall operate and maintain such system in good working order, within manufacturer's specifications and as specified below:
 - (a) Except for NH₃, the CEMS and COMS shall be designed, installed, calibrated, maintained and operated in such a manner as to meet the requirements of 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subparts A, and Da, 40 CFR Part 60, Appendix B, Performance Specification 1, 2, 3 and 6, 40 CFR Part 60, Appendix F-Quality Assurance Procedures, and latest revision of the Agency's Continuous Emission Monitoring Requirements ("CEM Requirements").
 - (b) The NH₃ CEMS shall be designed, installed, calibrated, maintained, operated and audited in such a manner as to meet the requirements of 40 CFR Part 60, Appendix F-Procedure 1. *Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination* and the latest revision of the Agency's CEM Requirements.

- (c) The CEMS and COMS shall be operated, calibrated and maintained continuously, independent of the Main Boiler's operation. The Permittee must measure and record valid continuous emission data for the parameters listed in this condition during all periods of the Main Boiler's operation including periods of boiler startup, shutdown, malfunction or emergency conditions, except for periods of CEMS and COMS quality assurance/quality control ("QA/QC") identified in the approved Quality Assurance Plan, routine maintenance, or uncontrolled malfunction. Nevertheless, the Permittee must obtain valid data for all CEMS parameters listed in this condition and COMS for a minimum of 90% of the Main Boiler's operating hours, based on the calendar quarter.
- (d) The Permittee shall maintain a Quality Assurance Plan ("QA Plan") for the above CEMS and COMS that is acceptable to the Agency. Said QA Plan shall satisfactorily document instrumentation, monitoring procedures, calibration procedures, QA/QC procedures, data acquisition and reporting procedures as required to demonstrate compliance with this Permit. The Permittee shall formally review the QA Plan annually. The Permittee shall revise and update the QA Plan as necessary, based on the results of this review, or at the request of the Agency or at any other appropriate time to accurately document CEMS and COMS operations. The Permittee shall notify the Agency in writing of the results of the annual QA Plan review. QA Plan modifications are subject to Agency review and shall not be implemented until approval has been received from the Agency.
- (e) The Permittee shall submit a summary report for each calendar quarter, within thirty (30) days after the close of the quarter, in a format acceptable to the Agency and in accordance with the Agency's CEM Requirements and the Permittee's approved QA Plan. The report shall include at a minimum, all valid NO_x lb/MMBtu, NO_x lb/hr, NH₃ ppmvd (corrected to 6% O₂) and visible emissions data in excess of the emissions standards specified in this Permit, as well as a frequency distribution summary of all valid NO_x lb/MMBtu, NO_x lb/hr, NH₃ ppmvd (corrected to 6% O₂) data collected, a summary of valid CEMS and COMS data capture, periods of CEMS and COMS downtime, CEMS and COMS invalid data, CEMS and COMS calibration and QA/QC results.
- (f) The CEMS NO_x data shall be recorded and reported in units of lb/MMBtu (of heat input) and lb/hour (both as NO₂ and in terms of 8-hour rolling averages, calculated on an hourly basis). The CEM NO_x data shall also be recorded and reported in units of lb/MMBtu on a calendar quarter based on an average of the valid CEMS 1-hour data. NH₃ data shall be recorded and reported in units of ppmvd (corrected to 6% O₂) in terms of 8-hour rolling averages, calculated on an hourly basis. Valid CEMS 8-hour rolling averages during source operation must be calculated from valid CEMS 1-hour sub-average data representing at least 75% of the particular averaging period.
- (g) The COMS shall measure and record visible emissions at least every 10-seconds. COMS data shall be reported in whole numbers in units of % Opacity in terms of 1-minute averages. Valid COMS 1-minute averages during source operation must

be calculated from at least 5 valid 10-second measurements. One (1)-minute averages shall be used for determining compliance with the twenty (20) % opacity aggregated six (6) minute standard and the sixty (60) % opacity standard.

- (h) The Permittee shall maintain a file of all information reported in the quarterly summaries and all other supporting information and data collected by the monitoring system for at least five (5) years from the date of collection of such data or submission of such summaries.

[§§5-405, 5-1015(a)(3)-(5) of the *Regulations*]

- Record Keeping and Reporting -

- (25) The Permittee shall maintain records of the following data:
 - (a) the quantity of wood fuel fired during each calendar month;
 - (b) the quantity of natural gas fired during each calendar month;
 - (c) the quantity of distillate fuel oil fired during each calendar month;
 - (d) sulfur content of fuel oil delivered to the Facility.

Summaries of such records shall be submitted to the Agency for each calendar quarter within thirty (30) days after the close of each quarter. [10 V.S.A. §556(c) and §5-1015(a)(3) of the *Regulations*] [#AOP-01-057]

- (26) Records of Fuel Oil Certifications: The Permittee shall obtain from the fuel supplier or independent certified laboratory, for each shipment of fuel oil received at the Facility, a certification or invoice regarding the sulfur content of the fuel oil. The certification or invoice shall include the name of the fuel oil supplier, date of delivery, fuel type, quantity of fuel oil delivered, and a statement as to the sulfur content of the fuel oil in percent sulfur by weight. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]

(27) Records of all required compliance testing shall include the following:

- (a) the date, place, and time of sampling or measurements;
- (b) the date analyses were performed;
- (c) the company or entity that performed the analyses;
- (d) the analytical techniques or methods used;
- (e) the results of all such analyses; and
- (f) the operating conditions existing at the time of sampling or measurement.

[§§5-402(1), 5-405(1) and 5-1015(5) of the *Regulations*][#AOP-01-057]

(28) The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the Main Boiler; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR Part 60 Subpart A §60.7(b)] [#AOP-01-057]

(29) Notification of Violations:

- (a) The Permittee shall notify the Agency in writing within ten (10) days of the occurrence of any of the violations listed below, of which it is aware. This notification shall include, at a minimum, the cause of the violation and any corrective action taken, or maintenance performed to correct the violation.
 - (i) Emissions of any of the pollutants CO, NO_x or NH₃ in excess of any applicable limit in this Permit which meet any of the following additional criteria:
 - (A) The emissions occurred during a period of malfunction or during abnormal operating conditions; and
 - (B) The emissions were greater than 150% of the applicable eight (8) hour NO_x and NH₃ limit; or
 - (C) The emissions were greater than 200% of the one (1) hour CO limit.
 - (ii) Emissions of visible air contaminants in excess of any applicable limit in this Permit.
 - (iii) Any other violation of the conditions of this Permit.
- (b) The Permittee shall notify the Agency of any violations of or deviations from the requirements of this Permit, of which it is aware, that are not listed in this Condition by including such violations or deviations in the appropriate quarterly excess emissions report as required by this Permit.

[§5-1015(a)(12) of the *Regulations* and 40 CFR Part 70 §70.6(a)(3)(iii)(B)]

(30) All records shall be retained for a minimum period of five (5) years from the date of record and shall be made available to the Agency upon request. [§§5-402(1), 5-405(1) and 5-1015(a)(7) of the *Regulations*]

(31) The Permittee shall notify the Agency in writing of any proposed physical or operational change at the Facility which may increase the emission rate of any air contaminant to the ambient air regardless of any concurrent emission reductions that may be achieved. This

notification requirement includes, but is not limited to, the proposed installation of any new equipment that is a source of air pollution, including the replacement of an existing permitted air pollution source. If the Agency determines that a permit amendment is required, a new application and the appropriate application fee shall be submitted. The permit amendment shall be obtained prior to commencing any such change except as may otherwise be allowed by the Regulations. [10 V.S.A. §556(c)] [§§5-402(1) and 5-501 of the *Regulations*]

(32) Annual Compliance Certification: By February 1st of each year, the Permittee shall submit an annual certification of compliance for the previous calendar year which ascertains and identifies the compliance status of the Facility with respect to all terms and conditions of this Permit, including but not limited to the following:

- (a) Identification of each term or condition of the permit that is the basis of the certification;
- (b) The compliance status;
- (c) Whether compliance was continuous or intermittent; and
- (d) The methods used for determining the compliance status of the Facility over the reporting period.

A copy of the compliance certification shall also be sent to the U.S. Environmental Protection Agency at the following address:

Air Compliance Clerk
U.S. EPA-New England
5 Post Office Sq. Suite 100 (OES04-2)
Boston, MA 02109-3912

[§114(a)(3) of the CAA] [§§5-402(1) and 5-1015(a)(11) of the *Regulations*]

(33) Annual Registration: The Permittee shall calculate the quantity of emissions of air contaminants from the Facility annually. If the Facility emits more than five (5) tons of any and all air contaminants per year, the Permittee shall register the source with the Secretary of the Agency (hereinafter "Secretary"), and shall renew such registration annually. Each day of operating a source which is subject to registration without a valid, current registration shall constitute a separate violation and subject the Permittee to civil penalties. The registration process shall follow the procedures set forth in Subchapter VIII of the *Regulations*, including the payment of the annual registration fee on or before May 15 of each year. [Subchapter VIII §§5-802, 5-803, 5-807, 5-808 of the *Regulations*]

- (34) All records, reports, and notifications that are required to be submitted to the Agency by this Permit shall be submitted to:

Agency of Natural Resources
Air Quality & Climate Division
One National Life Drive
Davis (North) Building 2nd Floor
Montpelier, VT 05620-3802

[§5-402(1) of the *Regulations*]

- Permit Shield -

- (35) In accordance with §5-1015(a)(14) of the *Regulations*, the Facility is granted a "permit shield" and is not subject to the regulations and standards listed in Finding of Fact (F)(b) of this Permit. The Agency's "permit shield" determination is based upon the information submitted by the Permittee in its application. The "permit shield" shall be binding only with respect to activities disclosed in the Permittee's application. [§5-1015(a)(14) of the *Regulations*]

**- ACID RAIN PHASE II REQUIREMENTS TO OPERATE
Specific Requirements for Unit 1 (Main Boiler) -**

- (36) Sulfur Dioxide:
- (a) SO₂ emissions from Unit 1 may not exceed the number of allowances that the source lawfully holds under the Acid Rain Program, including allowances allocated directly to the source through the Acid Rain Program, as summarized in Table A below, and allowances obtained through the emissions trading provisions of the Acid Rain Program, subject to the following qualifications:
- (i) No permit revision may be required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program, provided that the increases do not require a permit revision under any other applicable requirement;
 - (ii) No limit may be placed on the number of allowances that may be held by the stationary source;
 - (iii) A stationary source may not use allowances as a defense to noncompliance with any applicable requirements other than the requirements of the Acid Rain Program; and
 - (iv) Any Acid Rain allowance shall be accounted for according to the procedures established in the Acid Rain Program. [10 V.S.A. §556a(d)]

Table A
SO₂ Allowances by Year under Table 2 of 40 CFR Part 73, in tons

Unit Identification	2000 - 2009	2010 and beyond
Unit 1	104	38

- (37) The owners and operators shall, as of the allowance transfer deadline for this Phase II unit, hold allowances in the unit's compliance subaccount [after deductions under 40 CFR 73.34(c)] not less than the total annual emissions of sulfur dioxide from the unit. For the purposes of this condition, allowance transfer deadline is midnight of January 30 or, if January 30 is not a business day, midnight of the first business day thereafter. [10 V.S.A. §556a(d)]
- (38) Nitrogen Oxides: This unit is not subject to a NO_x limit under 40 CFR Part 76 and section 407 of the Act. [40 CFR Part 76 §76.1]

**- ACID RAIN PHASE II REQUIREMENTS TO OPERATE
- Standard Requirements -**

(39) Permit Requirements.

- (a) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Except for a phase I acid rain permit to be issued by U.S. EPA, submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the Agency determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit. [40 CFR Part 72 §72.9(a)(1)]
- (b) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the Agency; and
 - (ii) Have an Acid Rain permit. [40 CFR Part 72 §72.9(a)(2)]

(40) Monitoring Requirements.

- (a) Unless otherwise provided in writing by EPA, the owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. On March 6, 2001, EPA approved an alternate monitoring method for the Permittee. This alternate method calculates a Custom Default Sulfur Dioxide Emission Rate (see Condition (14)(c) of this permit) that is used in conjunction with equation F-23 of 40 CFR Part 75, Appendix F, Section 7 to calculate the SO₂ emissions based on the amount of wood, natural gas and fuel oil burned in Unit 1. [40 CFR Part 72 §72.9(b)(1)]
- (b) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for SO₂ and NO_x under the Acid Rain program. [40 CFR Part 72 §72.9(b)(2)]
- (c) The requirements of 40 CFR parts 74 and 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source. [40 CFR Part 72 §72.9(b)(3)]

(41) Sulfur Dioxide Requirements.

- (a) The owners and operators of each source and each affected unit at the source shall:
- (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount [after deductions under 40 CFR 73.34(c)] not less than the total annual emissions of SO₂ for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for SO₂.
- [40 CFR Part 72 §72.9(c)(1)]
- (b) Each ton of SO₂ emitted in excess of the Acid Rain emissions limitations for SO₂ shall constitute a separate violation of the Act. [40 CFR Part 72 §72.9(c)(2)]
- (c) Unit 1 is an affected unit under 40 CFR 72.6(a)(2) and shall be subject to the requirements under Condition (41)(a) of the Acid Rain Permit starting January 1, 2000. [40 CFR Part 72 §72.9(c)(3)]
- (d) Allowances shall be held in, deducted from, or transferred among allowance tracking system accounts in accordance with the Acid Rain Program. [40 CFR Part 72 §72.9(c)(4)]
- (e) An allowance shall not be deducted in order to comply with the requirements under (a)(i) of this condition of this Permit prior to the calendar year for which the allowance was allocated. [40 CFR Part 72 §72.9(c)(5)]
- (f) An allowance allocated by the U.S. EPA under the Acid Rain Program is a limited authorization to emit SO₂ in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR Part 72 §72.9(c)(6)]
- (g) An allowance allocated by the U.S. EPA under the Acid Rain Program does not constitute a property right. [40 CFR Part 72 §72.9(c)(7)]

(42) Excess Emissions Requirements.

- (a) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan to the U.S. EPA, as required under 40 CFR part 77, and submit a copy to the Agency. [40 CFR Part 72 §72.9(e)(1)]
- (b) The owners and operators of an affected unit that has excess emissions in any calendar year shall:

- (i) Pay to the U.S. EPA without demand the penalty required, and pay to the U.S. EPA upon demand the interest on that penalty, as required by 40 CFR Part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77. [40 CFR Part 72 §72.9(e)(2)]
- (43) Record keeping and Reporting Requirements.
 - (a) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of five (5) years from the date the document is created. This period may be extended for cause, at any time prior to the end of five (5) years, in writing by the U.S. EPA or the Agency:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 75;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program. [40 CFR Part 72 §72.9(f)(1)]
 - (b) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 Subpart I and 40 CFR Part 75. [40 CFR Part 72 §72.9(f)(2)]
- (44) Liability
 - (a) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement by the U.S. EPA pursuant to section 113(c) of the Act. [40 CFR Part 72 §72.9(g)(1)]
 - (b) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement by the U.S. EPA pursuant to section 113(c) of the Act and 18 U.S.C. 1001. [40 CFR Part 72 §72.9(g)(2)]

- (c) No permit revision may excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect. [40 CFR Part 72 §72.9(g)(3)]
 - (d) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program. [40 CFR Part 72 §72.9(g)(4)]
 - (e) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source. [40 CFR Part 72 §72.9(g)(5)]
 - (f) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR part 76.11(NOX averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative. [40 CFR Part 72 §72.9(g)(6)]
 - (g) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act. [40 CFR Part 72 §72.9(g)(7)]
- (45) Effect on Other Authorities
- (a) No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or a written exemption under 40 CFR Part 72.7 or 72.8 shall be construed as:
 - (i) Except as expressly provided in Title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of Title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
 - (ii) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
 - (iii) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;

- (iv) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (v) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

[40 CFR Part 72 §72.9(h)]

**- ACID RAIN PHASE II REQUIREMENTS TO OPERATE
- General Requirements for all Affected Units Subject to Title IV of CAA-**

- (46) Reporting - Annual Compliance Certification Report. For each calendar year in which a unit is subject to the Acid Rain emissions limitations, the designated representative shall submit to the U.S. EPA and to the Agency, within sixty (60) days after the end of the calendar year, an annual compliance certification report for the unit in compliance with 40 CFR 72.90. For the purpose of determining compliance with the Acid Rain emissions limitations and reduction requirements, total tons for a year shall be calculated as the sum of all recorded hourly emissions rates (or the tonnage equivalent of the recorded hourly emissions rates) in accordance with 40 CFR part 75, with any remaining fraction of a ton equal to or greater than 0.50 ton deemed to equal one ton and any fraction of a ton less than 0.50 ton deemed not to equal any ton. [40 CFR Part 72 §72.90(a) and §72.2]
- (47) Submissions
- (a) The designated representative shall submit a certificate of representation, and any superseding certificate of representation, to the U.S. EPA in accordance with Subpart B of 40 CFR Part 72 and, concurrently, shall submit a copy to the Agency. The designated representative may disregard this requirement if the aforementioned certificate has already been submitted to the U.S. EPA and the Agency. [40 CFR Part 72]
- (b) Each submission under the Acid Rain program shall be submitted, signed and certified by the designated representative for all sources on behalf of which the submission is made. [40 CFR Part 72 §72.21(a)]
- (c) In each submission under the Acid Rain Program, the designated representative shall certify, by his or her signature:
- (i) The following statement, which shall be included verbatim in such submission: "*I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made.*"
- (ii) The following statement which shall be included verbatim in such submission: "*I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.*" [40 CFR Part 72 §72.21(b)]
- (d) The designated representative of a source shall serve notice on each owner and operator of the source and of an affected unit at the source:

- (i) By the date of submission, of any Acid Rain Program submissions by the designated representative;
- (ii) Within ten (10) business days of receipt of a determination, of any written determination by the U.S. EPA or the Agency; and
- (iii) Provided that the submission or determination covers the source or the unit.

[40 CFR Part 72 §72.21(d)(1)]

- (e) The designated representative of a source shall provide each owner and operator of an affected unit at the source a copy of any submission or determination under (d) of this condition of the Acid Rain permit, unless the owner or operator expressly waives the right to receive such a copy. [40 CFR Part 72 §72.21(d)(2)]

- Standard Permit Conditions -

- (48) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Agency which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [10 V.S.A. §§556(c) and 556a(d)] [40 CFR Part 60.11(d) and 63.6(e)]
- (49) These Permit conditions may be suspended, terminated, modified, or revoked for cause and reissued upon the filing of a written request with the Secretary of the Agency (hereinafter "Secretary") or upon the Secretary's own motion. Any modification shall be granted only with the written approval of the Secretary. If the Secretary finds that modification is appropriate, only the conditions subject to modification shall be re-opened. The filing of a request for modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay any terms or conditions of this Permit. The Secretary may provide opportunity for public comment on any proposed modification of these conditions. If public comments are solicited, the Secretary shall follow the procedures set forth in 10 V.S.A. §556 and §556a, as amended. [10 V.S.A. §§556(d) and 556a(g)] [§§5-1008(a) and 5-1008(e) of the *Regulations*]
- (50) Cause for reopening, modification, termination and revocation of this Permit includes, but is not limited to:
- (a) Inclusion of additional applicable requirements pursuant to state or federal law;
 - (b) A determination that the permit contains a material mistake or that inaccurate information was used to establish emissions standards or other terms or conditions of the operating permit;
 - (c) A determination that the operating permit must be modified or revoked to ensure compliance with applicable requirements;
 - (d) A determination that the subject source has failed to comply with a permit condition;
 - (e) For Title V subject sources, a determination by U.S. EPA that cause exists to terminate, modify, revoke or reissue an operating permit;
 - (f) Those causes which are stated as grounds for refusal to issue, renew or modify an operating permit under §5-1008(a) of the *Regulations*; or
 - (g) If more than three (3) years remain in the permit term and the source becomes subject to a new applicable requirement.
- [§5-1008(e)(4) of the *Regulations*]
- (51) The Permittee shall furnish to the Agency, within a reasonable time, any information that the Agency may request in writing to determine whether cause exists to modify, revoke, reissue, or terminate the Permit or to determine compliance with this Permit. Upon request, the Permittee shall also furnish to the Agency copies of records required to be kept by this Permit. [10 V.S.A. §§556(c) and 556a(d)] [§5-402 of the *Regulations*] [40 CFR Part 70 §70.6(a)(6)(v)]

- (52) By acceptance of this Permit, the Permittee agrees to allow representatives of the State of Vermont access to the properties covered by the Permit, at reasonable times, to ascertain compliance with Vermont environmental and health statutes and regulations and with this Permit. The Permittee also agrees to give the Agency access to review and copy any records required to be maintained by this Permit, and to sample or monitor at reasonable times to ascertain compliance with this Permit. [10 V.S.A. §§556(c), 556a(d) and 557] [§§5-402, 5-404, and 5-1015(a)(10) of the *Regulations*]
- (53) All data, plans, specifications, analyses and other information submitted or caused to be submitted to the Agency as part of the application for this Permit or an amendment to this Permit shall be complete and truthful and, for Title V permit applications, certified by a responsible official whose designation has been approved by the Secretary. Any such submission which is false or misleading shall be sufficient grounds for denial or revocation of this Permit, and may result in a fine and/or imprisonment under the authority of Vermont statutes. [10 V.S.A. §§556(c) and 556a(d)] [§§5-505 and 5-1006(f) of the *Regulations*]
- (54) For the purpose of establishing whether or not a person has violated or is in violation of any condition of this Permit, nothing in this Permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [10 V.S.A. §§556(c) and 556a(d)]
- (55) Any permit noncompliance could constitute a violation of the federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [10 V.S.A. §§556(c) and 556a(d)] [§§5-1008(a) and 5-1008(e) of the *Regulations*]
- (56) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this Permit. [10 V.S.A. §§556(c) and 556a(d)]
- (57) No person shall build, erect, install or use any article, machine, equipment or other contrivances, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which otherwise would constitute a violation of these *Regulations*. [§5-403 of the *Regulations*]
- (58) The provisions of this Permit are severable. If any provision of this Permit, or its application to any person or circumstances is held invalid, illegal, or unenforceable by a court of competent jurisdiction, the invalidity shall not apply to any other portion of this Permit which can be given effect without the invalid provision or application thereof. [10 V.S.A. §§556(c) and 556a(d)]
- (59) This Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize any injury to private property or any invasion of personal rights. [10 V.S.A. §§556(c) and 556a(d)]
- (60) All subsequent owners and/or operators of this Facility must request an amendment and transfer of this Permit prior to commencing any operations covered by this Permit. All subsequent owners and/or operators shall submit to the Agency as part of the request for

amendment all such information the Agency deems necessary to establish legal ownership and/or interest in the property and all such information the Agency deems necessary to ensure the new owners and/or operators will construct and operate the Facility in compliance with the *Regulations* and this Permit. The terms and conditions of this Permit shall remain in full force and effect after submittal of the request for amendment and until the issuance of an amended Permit or denial. Should the Secretary deny the request, the new owner and/or operator must take whatever action is necessary to comply with the denial. [10 V.S.A. §§556 and 556a] [§§5-501, 5-1004, and 5-1013(a) of the *Regulations*]

- (61) Renewable Energy Projects – Right to Appeal to Public Service Board: If this decision relates to a renewable energy plant for which a certificate of public good is required under 30 V.S.A. §248, any appeal of this decision must be filed with the Vermont Public Service Board pursuant to 10 V.S.A. §8506. This section does not apply to a facility that is subject to 10 V.S.A. §1004 (dams before the Federal Energy Regulatory Commission), 10 V.S.A. §1006 (certification of hydroelectric projects) or 10 V.S.A. Chapter 43 (dams). Any appeal under this section must be filed with the Clerk of the Public Service Board within 30 days of the date of this decision; the appellant must file with the Clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. 8504(c)(2), and shall also serve a copy of the Notice of Appeal on the Vermont Department of Public Service. For further information, see the Rules and General Orders of the Public Service Board, available on line at www.psb.vermont.gov. The address for the Public Service Board is 112 State Street, Montpelier, Vermont, 05620-2701 (Tel. # 802-828-2358).
- (62) All Other Projects – Right to Appeal to Environmental Court: Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings. For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at www.vermontjudiciary.org. The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, VT 05641 (Tel. # 802-828-1660).
- (63) Conditions (1) – (7) and (11) – 0 are derived from the new source review requirements of Subchapter V of the *Regulations*. With the exception of the cited new source review conditions, this Operating Permit shall expire as indicated on the cover page to this Permit. The Permittee shall submit to the Agency a complete application for renewal of the Operating Permit at least six (6) months before the expiration of the Operating Permit. If a timely and administratively complete application for an operating permit renewal is submitted to the Secretary, but the Secretary has failed to issue or deny such renewal before the end of the term of this Operating Permit, then the Permittee may continue to operate the subject source and all terms and conditions of this Operating Permit shall remain in effect until the Secretary has issued or denied the operating permit renewal.

However, this Operating Permit shall automatically expire if, subsequent to the renewal application being determined or deemed administratively complete pursuant to §5-1006 of the *Regulations*, the Permittee fails to submit any additional information required by the Secretary as well as information pertaining to changes to the Facility within thirty (30) days or such other period as specified in writing by the Secretary. [§§5-1011 and 5-1012(a) of the *Regulations*] [§§5-1005(c) and 5-1012 of the *Regulations*]

- (64) The conditions of this Permit as set forth above supersede all conditions contained in all prior Permits issued by the Agency to the Permittee for this Facility. [10 V.S.A. §§556(c) and 556a(d)]

The Agency's issuance of this Air Pollution Control Permit relies upon the data, judgment, and other information supplied by the Permittee. The Agency makes no assurances that the air contaminant source approved herein will meet performance objectives or vendor guarantees supplied to the source Permittee. It is the sole responsibility of the Permittee to operate the source in accordance with the conditions herein and with all applicable state and federal standards and regulations.

Permit issued and effective this 14th day of June, 2018.

Permit issuance authorized by:
Agency of Natural Resources
Emily Boedecker, Commissioner
Department of Environmental Conservation

By: Heidi Hales 6/19/18
Heidi C. Hales, Director Date Signed
Air Quality & Climate Division

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Y:\AP_Admin\StationaryFacilities\ Burlington (City of)\ Burlington Electric Department\McNeil Generating Station\Permits\AOP-12-005

State of Vermont
Department of Environmental Conservation
Air Quality & Climate Division
Davis Building – 2nd Floor
One National Life Drive
Montpelier, VT 05620-3802
(802) 828-1288
FAX (802) 828-1250

AGENCY OF NATURAL RESOURCES

June 14, 2018

Ross Predom
Environmental Specialist
Burlington Electric Department
585 Pine Street
Burlington, VT 05401-4891

RE: Final Air Pollution Control Permit to Construct and Title V Permit to Operate (#AOP-12-005)
McNeil Electric Generating Station

Dear Mr. Predom:

The Vermont Agency of Natural Resources (ANR) Department of Environmental Conservation (DEC) Air Quality & Climate Division (Agency) has completed its review of Burlington Electric Department's application for the renewal of a Title V Permit to Operate the Facility located at 111 Intervale Road in the town of Burlington, Vermont. The Agency is now issuing a final Air Pollution Control Title V Permit to Operate.

Consistent with the provisions of 10 V.S.A. §556(e) and for the purposes of reducing the administrative burden of enforcing two separate permits for this Facility, the Agency is incorporating the existing Permit to Construct requirements contained in the prior Air Pollution Control Permit to Construct and Operate (#AOP-07-020A) previously issued on February 2, 2009 with the current renewal of the Air Pollution Control Permit to Operate. The result is a combined Air Pollution Control Permit to Construct and Operate which satisfies both the construction permit (10 V.S.A. §556 and Subchapter V of the Regulations) and operating permit (10 V.S.A. §556a and Subchapter X of the Regulations) requirements for your Facility. This combined permit incorporates and supersedes all prior Permit to Construct and/or Operate approvals issued in the past. Please note this permit is valid for a period of five (5) years and an application to renew the permit must be filed at least twelve (12) months prior to the date of expiration.

Please review this Permit carefully to ensure that you are currently, and continue to be, in compliance with all the requirements contained in this Permit. There are a few key points included in this permit or that you may otherwise be subject to that I would like to highlight for your convenience:

- Fuel oil sulfur: Consistent with New England regional efforts, Vermont has adopted regulations that will be lowering the allowed sulfur content of fuels oils between the years 2014 and 2018. Commencing on July 1, 2014, the sulfur content of No.2 and lighter distillate oils purchased shall not exceed 0.05 percent by weight and commencing July 1, 2018 such oils shall not exceed 0.0015 percent by weight (15 ppm). Distillate fuel oils meeting the 0.0015% by weight sulfur limit are commonly referred to as ultra low sulfur diesel (ULSD). Commencing on July 1, 2018, the sulfur content of No.4 residual oil and No.5/No.6 residual fuel oil purchased shall not exceed 0.25 percent and 0.5 percent by weight, respectively. To the extent your permit may currently allow higher sulfur content fuel oils, this regulation will take precedence and further restrict your sulfur content on the respective dates. The Permit also requires obtaining a certification



or invoice regarding the sulfur content of the fuel oil from the fuel supplier, for each shipment of fuel oil received at the Facility.

If you have any questions or comments, please feel free to contact me by phone at (802) 490-6626, by email at steven.snook@vermont.gov, or in writing at the above address.

Sincerely,

A handwritten signature in black ink that reads "Steven Snook". The signature is written in a cursive, flowing style.

Steven Snook – Environmental Engineer
Engineering Services/Permitting Section
Air Quality & Climate Division

Y:\AP_Admin\Stationary Facilities\Burlington (city of)\Burlington Electric Department\McNeil Generating Station\Permits\AOP-12-005\FINAL\ 2018-06-14 McNeil_FinalPermitLetter.docx